



System-of-Care Evaluation Brief

Medication Use for Children Entering Systems of Care

Over the course of the last several decades, medication has been used with increasing frequency in the treatment of children's mental health disorders (Jensen, Hoagwood, & Petti, 1996). Most of these medications were developed initially for use with adults and with increasing clinical experience and accumulating research evidence have gained popularity as an important part of treatment plans for addressing the wide range of mental health problems presented by children and youth (Hoagwood et al., 2000). Current treatment guidelines suggest that medications are effective in reducing symptoms and stabilizing childhood mental health conditions, but that other therapeutic treatment components are necessary to promote the development of coping strategies and adaptive skills that predict long-term successful outcomes. Despite the increasing use of medications with children, limited attention has been paid to understanding the effectiveness of medications in community settings and the relationship between medications as one treatment component of a coordinated care plan within a larger, integrated system-of-care approach. An important step to take before examining this larger question is to understand factors associated with the use of medication in treating children at the time that they enroll in system-of-care services.

This brief provides information on medication histories for children entering services provided within systems of care funded by the Comprehensive Community Mental Health Services for Children and Their Families Program. At intake into services, caregivers are asked whether or not their child has taken medications for his or her emotional and behavioral problems during the last 6 months. If they indicate that their child has taken medication(s), they are asked for the names of all medications that were taken during this time period. These questions are also asked at follow-up interviews, every 6 months after entering system-of-care services. The analyses presented in this brief are for the 23 grantee communities initially funded in the 1997-1998 funding cycle, and are limited to information regarding medication use that was obtained at service entry.

System-of-Care Evaluation Briefs report findings from the National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program funded by the Center for Mental Health Services (CMHS) of the Substance Abuse and Mental Health Services Administration. The Program provides six-year grants to states, political subdivisions of states, American Indian Tribes, tribal organizations, and territories to support the development of community-based systems of care for children with serious emotional disturbance and their families. Systems of care are developed using an approach that emphasizes integration of services through collaborative arrangements between child-serving sectors such as education, child welfare, juvenile justice, and mental health; youth and family caregiver participation; and cultural and linguistic competence of services. The Briefs are published monthly and are sponsored by the Child, Adolescent and Family Branch of the federal Center for Mental Health Services.



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Based on responses received from 2,468 caregivers at intake into services, 1,166 or 47.2% reported that their child had taken medication for their emotional or behavioral symptoms in the 6 months prior to entering system-of-care services. Of the caregivers reporting medication use, 549 or 47.1% indicated that their child had taken more than one medication during the same time period. These data indicate that nearly half of children entering systems of care have taken medication as part of their treatment in the immediate time period before services are initiated and that approximately half of these children have been exposed to multiple medications during this 6-month interval.

Table 1
Specific Medications Reported at Entry into Systems of Care

Medication	Percentage of Sample Reporting Medication Use
All Stimulants	45.3%
Adderall	17.6%
Cylert	.94%
Dexedrine	5.6%
Ritalin	21.2%
All Antidepressants/Mood Stabilizers	47.1%
Depakote	8.4%
Effexor	1.6%
Lithium	2.4%
Paxil	9.8%
Prozac	7.5%
Tegretol	1.3%
Wellbutrin	8.1%
Zoloft	8.0%

Table 1 provides information on the specific types of medication that were reported by the caregivers at intake into services. As can be seen from the table, just over 45% of the caregivers indicated that their children had taken a stimulant medication (usually given to treat attention problems or disruptive behavior). The most frequently reported stimulants were Adderall and Ritalin, accounting for most of the reported medication use in this area. Just over 47% of the caregivers reported that their child had taken an antidepressant or mood stabilizing medication. The most frequently reported medications in this category included Paxil, Depakote, Wellbutrin, Zoloft, and Prozac. Reports of the use of antidepressant/mood stabilizing medications were more evenly distributed across the specific medications currently available in this area.

A number of factors were related to whether or not a child had taken psychoactive medication prior to entry into system-of-care services. More males (62%) than females (38%) had taken medication for their emotional or behavioral problems. Caregivers of children who had participated in outpatient services, school-based services, day treatment, and residential treatment reported significantly higher rates of medication use compared to children who had not participated in these treatment modalities. Interestingly, there was no difference in therapeutic medication use for children who had participated in alcohol/substance abuse treatment versus those who had not participated in such treatment. Similarly, risk factors such as physical abuse, sexual abuse, running away, and attempting suicide in the past were all significantly associated with higher reported rates of medication use. History of substance abuse was not significantly related to whether or not medication had been used in the 6 months prior to entering system-of-care services.

The most likely diagnostic categories in which medication had been used in the 6 months prior to entering services included psychotic disorders (86%), autism and other pervasive developmental disorders (83%), and attention-deficit/hyperactivity disorder (78%). The least likely diagnostic categories to report medication use included adjustment disorders (19%), substance abuse disorders (28%), and anxiety disorders (30%). Children and adolescents who had taken medication displayed significantly higher levels of emotional and behavioral symptoms on the Child Behavior Checklist and Youth Self-Report; higher levels of functional impairment on the Child and Adolescent Functional Assessment Scale (CAFAS), except in the area of substance abuse; and lower levels of behavioral and emotional strengths on the Behavioral and Emotional Rating Scale (BERS).

This initial analysis of medication use for children and adolescent entering services in CMHS-funded systems of care reveals a number of interesting issues. First, it appears that approximately one-half of children entering services have been treated with medication and that approximately one-half of those children have taken multiple medications in the 6 months prior to intake. The vast majority of medications that were reported fell within the stimulant or antidepressant/mood stabilizing classes. Males and children with psychotic disorders or ADHD were more likely to have taken medication, while children with adjustment disorders, substance abuse disorders, and anxiety disorders were less likely to have taken medication. It is interesting to note that history of or treatment for substance abuse was not related to whether or not children had taken medication. In addition, functional impairment associated with substance use was not significantly associated with the use of psychoactive medication.

This information underscores the importance of assessing medication use history at intake into services as it is an important factor to consider in developing treatment plans. Future evaluation briefs will present information on the relationships between medication use, involvement in systems of care, and outcomes.

References:

- Hoagwood, K., Jensen, P. S., Feil, M., Vitiello, B., & Bhatara, V. S. (2000). Medication management of stimulants in pediatric practice settings: A national perspective. *Journal of Developmental & Behavioral Pediatrics, 21*(5), 322-331.
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Volume 2 issues:

- 1 Characteristics of Youth Transitioning to Adulthood and System-of-Care Services
- 2 Juvenile Justice Characteristics and Outcomes of Children in Systems of Care
- 3 Managed Care Initiatives within Systems of Care
- 4 Models of Interagency Structures in Systems of Care: Strengths and Challenges
- 5 Behavioral and Emotional Strength Characteristics and Outcomes in Systems of Care
- 6 Description of Families Who Use Key Family Services in Systems of Care
- 7 Service Use in System-of-Care Communities

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